HAKAN YILDIZ
Assistant Professor
Department of Supply Chain Management
Eli Broad College of Business
Michigan State University
East Lansing, MI 48824
(517) 432-6439
yildiz@broad.msu.edu

Academic Work Experience

Jan. 2009 - Present   Assistant Professor, Dept. of Supply Chain Management, Eli Broad College of Business, Michigan State University

Aug. 2008 - Dec. 2008   Visiting Assistant Professor, Dept. of Supply Chain Management, Eli Broad College of Business, Michigan State University

Aug. 2002 - Aug. 2008   Graduate Assistant, Tepper School of Business, Carnegie Mellon University

Aug. 2001 - May 2002   Teaching Assistant, Dept. of Industrial Engineering, Univ. of Pittsburgh

Sep. 2000 - May 2001   Teaching Assistant, Dept. of Industrial Engineering, Bilkent University

Education

- PhD, Industrial Administration (Operations Research), Carnegie Mellon University, 2008. Dissertation: Methodologies and Applications for Scheduling, Routing and Related Problems. Advisor: Michael Trick.

- MS, Industrial Administration (Operations Research), Carnegie Mellon University, 2004.

- BS, Industrial Engineering, Bilkent University, 2000.

Research Interests

Supply chain risk management, logistics optimization, resource (personnel, vehicle) scheduling & routing, supply chain analytics, talent supply chain management.

Peer-Reviewed Publications

J. Yoon, **H. Yildiz,** and S. Talluri, Risk Management Strategies in Transportation Capacity Decisions: An Analytical Approach, *Journal of Business Logistics,* forthcoming, 2015.

W. Ho, T. Zheng, **H. Yildiz,** and S. Talluri, Supply chain risk management: A literature review, *International Journal of Production Research,* vol. 53, no. 16, 2015.

H. Yildiz, J. Yoon, S. Talluri, and W. Ho, Reliable Supply Chain Network Design. *Decision Sciences Journal*, forthcoming, 2015.

S. Talluri, T. Kull, **H. Yildiz**, and J. Yoon, Assessing the Efficiency of Risk Mitigation Strategies in Supply Chains. *Journal of Business Logistics*, vol.34, no. 4, pp. 253-269, 2013.

H. Yildiz, M.P. Johnson and S. Roehrig, Planning for Meals-on-Wheels: Algorithms and Application. *Journal of the Operational Research Society*, 64 (10), 1540–1550, October 2013.

M. A. Trick, **H. Yildiz** and T. Yunes, Scheduling Major League Baseball Umpires and the Traveling Umpire Problem. *Interfaces*, 42, 232–244, May/June 2012. (*author names in alphabetical order*)

M.A. Trick and **H. Yildiz**, Locally Optimized Crossover for the Traveling Umpire Problem. *European Journal of Operational Research*, 216(2), 286-292, January 2012. (*author names in alphabetical order*)

M.A. Trick and **H. Yildiz**, Benders' Cuts Guided Large Neighborhood Search for the Traveling Umpire Problem. *Naval Research Logistics,* 58(8), 771-781, December 2011. (*author names in alphabetical order*)

H. Yildiz, R. Ravi and W. Fairey, Integrated Optimization of Customer and Supplier Logistics at Robert Bosch LLC. *European Journal of Operational Research,* 207(1), 456-464, 2010

Research Under Review

- F. Mutlu, M.K. Msakni, **H. Yildiz**, E. Sonmez and S. Pokharel. Journal: *European Journal of Operational Research.* Topic: LNG Supply Chain Optimization (Minor revision received, submitted for 2nd round review)

- **H. Yildiz**, S. Duhadway, R. Narasimhan and S. Narayanan, Journal: *IEEE Transactions on Engineering Management.* Topic: Demand risk management (Under 1st round review)

Research-in-Progress

- S. Narayanan, **H. Yildiz** and D. Closs. Journal Target: *Journal of Operations Management.* Topic: Talent supply chain management. (Analysis completed, manuscript is in preparation)

- S. Talluri, **H. Yildiz**, J. Yoon and J. Wassick, Journal Target: *Production and Operations Management.* Topic: Supply chain analytics (Analysis completed, manuscript is in preparation)

- F. Mutlu, **H. Yildiz**, E. Sonmez, and S. Pokharel. Journal Target: *International Journal of Production Research.* Topic: LNG Shipment Planning (Analysis completed, manuscript is in preparation)

- J. Yoon, S. Talluri, and **H. Yildiz**, Journal Target: *Production and Operations Management.* Topic: Supply risk management (Analysis completed, manuscript is in preparation)

- **H. Yildiz** and R. Wiedmer, Journal Target: *Journal of Business Logistics.* Topic: Risk management in vehicle routing (Analysis completed, manuscript is in preparation)

- **H. Yildiz**, J. Acimovic, and S. Griffis. Journal Target: *Production and Operations Management.* Topic: Logistics optimization in services (Analysis is in progress)

- A. Bhattacharjee, S. Chakraborty, T. Maiti, S. Talluri, **H. Yildiz**, Journal Target: *Decision Sciences Journal.* Topic: Supply chain networks and risk management (Analysis is in progress)

- S. Narayanan, **H. Yildiz** and D. Closs. Journal Target: *Harvard Business Review*. Topic: Talent supply chain management. (Analysis is in progress)

Peer-Reviewed Conference Proceedings

- S. Talluri, **H. Yildiz**, J. Yoon and J. Wassick, Models for Monitoring Supply Chain Network Design Efficiency, *In Proceedings of the CSCMP Educators' Conference, 2015, San Diego, CA*

- J. Yoon, **H. Yildiz,** and S. Talluri, *Risk Management Strategies in Transportation Capacity Decisions: An Analytical Approach, In Proceedings of the CSCMP Educators' Conference, 2014, San Antonio, TX*

- **H. Yildiz**, R. Ravi and W. Fairey, Optimization of Customer and Supplier Logistics at Robert Bosch LLC. In *Proceedings of the CSCMP Educators' Conference, 2009, Chicago, IL.*

- M.A. Trick and **H. Yildiz**, Bender's Cuts Guided Large Neighborhood Search for The Traveling Umpire Problem, in CP-AI-OR 2007, P. Van Hentenryck and L. Wolsey (Eds.), Lecture Notes in Computer Science, No. 4510, pp. 332-345, Springer, 2007. *Acceptance rate for CPAIOR: ~1/3*

- M.A. Trick and **H. Yildiz**, A Large Neighborhood Search Heuristic for Graph Coloring, in CP-AI-OR 2007, P. Van Hentenryck and L. Wolsey (Eds.), Lecture Notes in Computer Science, No. 4510, pp. 346-360, Springer, 2007. *Acceptance rate for CPAIOR: ~1/3.*

- **H. Yildiz**, M.P. Johnson and S. Roehrig, Policy Implications of a Planning Model for Home-Delivered Meals, in *Proceedings of the MSOM Conference*, 2006, Atlanta, Georgia.

Research Grants

- Midland Research Institute for Value Creation, *A Methodology for Monitoring Efficiency of Supply Chain Network Design* (with Srinivas Talluri), 2014-2016, **Amount funded: $127,720**

- Kelly OCG Inc., *Value Drivers and Productivity in Talent Supply Chain Management,* (with D. Closs and S. Narayanan), 2012-2013, **Amount funded: $33,765**

- Qatar Foundation, *A Framework for Upstream Natural Gas Supply Chain Design: LNG Distribution Network,* (with F. Mutlu, S. Pokharel and R. Ravi), 2012-2015, **Amount funded: $629,737.44**

- Kelly OCG Inc., *Cycle Time Analysis for Talent Supply Chain Management,* (with D. Closs and S. Narayanan), 2011, **Amount funded: $11,500**.

- Center for Packaging Innovation and Sustainability, Michigan State University, *Economic Viability and Sustainability of Returnable versus Single-Use Packaging Systems, (*with R. Clarke and J. Macdonald), 2011-2012, **Amount funded: $57,656**

Eli Broad College of Business Summer Research Grants:

- *A Network Analysis of the US Auto Industry Supply Chains,* 2015, **Amount funded: $15,000**

- *Resource Routing and Scheduling in Services Industry,* 2014, **Amount funded: $10,000**

- *Planning for Equipment Rentals in the Entertainment Industry,* 2013, **Amount funded: $8000**

- *Reliable and Robust Supply Chain Network Design,* 2012, **Amount funded: $7000**

Research Projects with Firms

Bosch, Major League Baseball, Kelly OCG, Lear Corp., Dow Chemical, SGA Production Services

Invited Seminars

- U. of Rhode Island, "Reliable Supply Chain Network Design," October 22, 2014

- Albion College, "Decision models for logistics management", March 26, 2015

- U of Michigan-Dearborn, "Decision models for logistics management", April 2, 2015

Conference Presentations (**Bold** indicates presenter)

- Yoon, J., **Yildiz, H**., and Talluri, S., "Risk Management Strategies in Transportation Capacity Decisions: An Analytical Approach", DSI Annual Conference, November 2015, Seattle, WA

- S. Talluri, **H. Yildiz**, J. Yoon and J. Wassick, Models for Monitoring Supply Chain Network Design Efficiency, CSCMP Educators' Conference, September*, 2015, San Diego, CA*

- **Yoon, J.,** Yildiz, H., and Talluri, S., "Risk Management Strategies in Transportation Capacity Decisions: An Analytical Approach", *CSCMP Educators' Conference, September 2014, San Antonio, TX*

- **Yildiz, H.,** Talluri, S., Kull, T., and Yoon. J., "Assessing the Efficiency of Risk Mitigation Strategies in Supply Chains", *INFORMS Annual Conference, November 2014, San Francisco, CA.*

- **Yoon, J.,** Yildiz, H., and Talluri, S., "Risk Management Strategies in Transportation Capacity Decisions: An Analytical Approach", *INFORMS Southeast Michigan Symposium, October 2014, East Lansing, MI.*

- **Yildiz, H.,** Yoon, J., and Talluri, S., "Reliable Supply Chain Network Design", *INFORMS Southeast Michigan Symposium, November 2013, Detroit, MI.*

- **Yildiz, H.,** "Planning for Equipment Rentals and the Traveling Equipment Problem", *INFORMS Annual Conference, October 2013, Minneapolis, MN.*

- **Yildiz, H.,** Trick, M., and Yunes, T., "Traveling Umpire Problem: A New Challenging Test-Bed for Optimization", *Turkish Operations Research and Industrial Engineering Conference, June 2012, Istanbul, Turkey*

- **Yildiz, H.,** Talluri, S., and Close, D., "Reliable and Robust Supply Chain Network Design", *European DSI Conference, June 2012, Istanbul, Turkey*

- **Yildiz, H.,** Talluri, S., and Closs, D., "Reliable Supply Chain Network Design", *POMS Annual Conference, April 2012, Chicago, IL.*

- **Yildiz, H.,** Talluri, S. and Kull, T., "Efficacies of Risk Mitigation Strategies in Supply Chains", *POMS Annual Conference, April 2012, Chicago, IL.*

- **Kull, T.,** Talluri, S. and Yildiz, H., "Efficiencies of Risk Mitigation Strategies Across Various Supply Chain Disruptions", *DSI Annual Conference, November 2011, Boston, MA.*

- **Mutlu, F.,** and Yildiz, H., "A Framework for Upstream Natural Gas Supply Chain Design: LNG Distribution Network", *INFORMS Annual Conference, November 2011, Charlotte, NC.*

- **Yildiz, H.,** Talluri, S., and Closs, D., "Reliable Supply Chain Network Design", *INFORMS Annual Conference, November 2011, Charlotte, NC.*

- **Yildiz, H.,** "Supply Chain Network Strategy", *Invited Talk, 6th International Procurement, Logistics and Supply Chain Management Summit, October 2010, Istanbul, Turkey*

- **Yildiz, H.,** "Analytical Methods for Supply Chain Management", *Workshop, 6th International Procurement, Logistics and Supply Chain Management Summit, October 2010, Istanbul, Turkey*

- **Yildiz, H.,** "Designing the Supply Chain Network", *Invited Talk, 5th International Procurement, Logistics and Supply Chain Management Summit, October 2009, Istanbul, Turkey*

- **Yildiz, H.,** "Decision Making Models for Supply Chain Management", *Workshop, 5th International Procurement, Logistics and Supply Chain Management Summit, October 2009, Istanbul, Turkey*

- **Trick, M.,** and Yildiz, H., "Locally Optimized Crossover for the Traveling Umpire Problem", *Invited Talk, Informs Annual Conference, October 2009, San Diego, CA.*

- **Yildiz, H**., Ravi, R. and Fairey, W., "Optimization of Customer and Supplier Logistics at Bosch", *CSCMP Educators' Conference, September 2009, Chicago, IL.*

- **Yildiz, H.,** Trick, M., and Yunes, T., "Scheduling Major League Baseball Umpires and the Traveling Umpire Problem", *DSI Annual Conference, November 2008, Baltimore, MD.*

- **Yildiz, H**. and Ravi, R.., "Optimization of Customer and Supplier Logistics at a Large Automotive Parts Manufacturer", *Informs Annual Conference, October 2008, Washington, DC.*

- **Yildiz, H**. and Trick, M., "Logical Bender's Cuts Guided Local Search and a Greedy Heuristic for the Traveling Umpire Problem", *Invited Talk, Informs Annual Conference, November 2007, Seattle, WA.*

- **Trick, M.,** Yildiz, H., and Yunes, T., "Scheduling Umpires," *Invited Talk, EURO XXII, July 2007, Prague, Czech Republic.*

- **Yildiz, H.** and Trick, M., "Bender's Cuts Guided Large Neighborhood Search for The Traveling Umpire Problem," *CP-AI-OR, May 2007, Brussels, Belgium.*

- **Yildiz, H.** and Trick, M., "A Large Neighborhood Search Heuristic for Graph Coloring," *CP-AI-OR, May 2007, Brussels, Belgium.*

- **Yildiz, H.** and Trick, M., "The Traveling Umpire Problem," *Invited Talk, Informs Annual Conference, November 2006, Pittsburgh, PA.*

- **Yildiz, H.**, Johnson, M.P., and Roehrig S., "Policy Implications of a Planning Model for Home-Delivered Meals," *MSOM Conference, June 2006, Atlanta, GA.*

- **Yildiz, H.** and Johnson, M.P. "Policy Implications of a Planning Model for Home-Delivered Meals," *Invited Talk, Informs Annual Conference, November 2005, San Francisco, CA.*

- **Yildiz, H.**, Johnson, M.P., and Roehrig S., "A Genetic Algorithm for the Home-Delivered Meals Location Routing Problem," *Invited Talk, IFORS Triennial 2005 Conference, Honolulu, HI.*

- **Yildiz, H.** and Trick, M., "A Large Neighborhood Search Heuristic for Graph Coloring," *Invited Talk, Informs Annual Conference, October 2004, Denver, CO.*

Unrefereed Reports

- Closs, D., Narayanan, S., and **Yildiz, H.,** "Fundamentally Different: Competencies for Managing Contingent Talent," white paper published by Kelly OCG, 2014.

In the Popular Press

- My incorporation Kewill Transport TMS into the Transportation Management course is announced by press release by *Reuters on July 24, 2015 (http://www.reuters.com/article/2015/06/24/idUSnMKWyf0sKa+1c2+MKW20150624)*

- Appeared on WKAR Radio's *Current State on July 10, 2014 (http://wkar.org/term/supply-chain-management)*

- Quoted in *MHI Solutions Magazine, Volume 2, Issue 1, 2014 (*http://bit.ly/1gE34cO)

- Paper on MLB umpire scheduling covered in 2011 in various news outlets:

- *Scientific American, United Press International, Business Miami Magazine, WAMC Northeast Public Radio Academic Minute, Miami New Times, phys.org, HPCwire.com, thepostgame.com, sciencedaily.com, futurity.org, esciencenews.com,*

Graduate Student Activity

- Ph.D. Committee Member: Christopher L. Fleming (Logistics), Jiho Yoon (Operations Management),

- M.S. in Supply Chain Management Thesis Advisor: Ben Binatebe, Mark Ford

Teaching Experience

Instructor

@ Eli Broad College of Business, Michigan State University

» Logistics and Transportation Management, BA Core, Every year since Spring 2013
» Transportation Management, BA Elective, Every year since Fall 2008.

@ Tepper School of Business, Carnegie Mellon University

» Optimization Models for Logistics, MBA elective, Spring 2007.
» Logistics and Supply Chain Management, BA elective, Spring 2007.
» OR Models for Routing and Distribution, MBA elective, Spring 2006.

Guest Lecturer

@ Eli Broad College of Business, Michigan State University

» "Network Models and Optimization," in Logistics and Public Policy, PhD core (Patricia Daugherty, instructor), September 24, 2013.
» "Metaheuristics," in SCM Applied Decision Models, PhD (Srinivas Talluri, instructor), March 28, 2013.
» "Vehicle Routing," in Logistics and Transportation Management, BA core (Yemisi Bolumole, instructor), Spring 2013 and Spring 2014.
» "Network Analysis Research," in Logistics and Public Policy, PhD core (David Closs, instructor), November 28, 2011.
» "Optimization Methods for Logistics," in Logistics and Public Policy, PhD core (Ed Morash, instructor), November 7, 2008.

@ H. John Heinz III School of Public Policy and Management, Carnegie Mellon University

» "Local Search and Genetic Algorithms," in Operations Research for the Public Sector, MS Elective, (Michael P. Johnson, instructor), November 15, 2006.

Teaching Assistant

» Many MBA and Undergraduate level Operations Research and Management classes.

Teaching Interests

Logistics; Transportation; Supply Chain Management; Business Analytics; Decision Making Models; Optimization; Metaheuristics

Service to Academic Profession

- *Secretary:* INFORMS Southeast Michigan Chapter, 2014-

- *Symposium Co-Organizer:*

  » INFORMS Southeast Michigan Research Symposium, East Lansing, MI, 2014
  » "Data in the D" Big Data Analytics Conference, Detroit, MI, 2015

- *Track Chair:*
  - » DSI Annual Meeting, Seattle, WA, 2015
  - » CSCMP Educators' Conference, Chicago, IL, 2009

- *Panel Organizer* :
  - » "Practicality vs tractability in using decision models for logistics problems", DSI Annual Meeting, Seattle, WA, 2015
  - » "External letters of recommendation for tenure: Hear from those who write and read them", INFORMS Annual Meeting, San Francisco, CA, 2014

- *Panel Participant:*
  - » Logistics/Supply Chain Doctoral Symposium, East Lansing, MI, 2009
  - » INFORMS Future Academician Colloquium, Minneapolis, MN, 2013

- *Scientific Committee Member:* 9th International Logistics & Supply Chain Congress, Izmir, Turkey, 2011

- *Session Chair:*
  - » INFORMS Annual Conference, Washington, DC, 2008
  - » DSI Annual Conference, Boston, MA, 2011
  - » POMS Conference, Chicago, IL, 2012
  - » Turkish Operations Research and Industrial Engineering Conference, Istanbul, Turkey, 2012
  - » INFORMS Annual Conference, San Francisco, CA, 2014

- *Judge:* Society of Logistics Engineers, Doctoral Dissertation Proposal Award, 2009-2011

- *Editorial Review Board Member:*
  - » IEEE Transactions on Engineering Management, 2014-

- *Ad-Hoc Reviewer:*
  - » Journal of Business Logistics
  - » Decision Sciences Journal
  - » European Journal of Operational Research
  - » International Journal on Production Economics
  - » Journal of Operational Research Society
  - » Computers and Operations Research
  - » Optimization. A Journal of Mathematical Programming and Operations Research.
  - » International Transactions in Operational Research

Service to Michigan State University

- Faculty Grievance Hearing Panel (2010)

- Undergraduate Interest Group (2010)

- Ad-hoc departmental committee for department strategy (2012-2014)

Professional Affiliations

- Institute for Operations Research and the Management Sciences (INFORMS)

- Council of Supply Chain Management Professionals (CSCMP)

Awards and Honors

- DSI Doctoral Consortium participant, 2007.

- INFORMS Doctoral Colloquium participant, 2007.

- William Larimer Mellon Fellowship for doctoral studies at Carnegie Mellon University, 2002 – 2005.

- Full academic scholarship for graduate studies, Bilkent University, 2000 – 2001.

- Full academic scholarship for undergraduate studies, Bilkent University, 1996 – 2000.

- Ranked 10th out of 41,000 in the Graduate School Admission Examination in Mathematical Sciences in Turkey, 1999.

- Ranked 4th in the first stage, and ranked 9th in the second stage of the University Admission Examination in Turkey among more than one million examinees, 1996.